Platelet function in patients with sickle cell anaemia in Nairobi

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Abstract:

From July 1990 to January 1991 we studied platelet functions in 55 indigenous Kenyan patients (23 males and 32 females) with sickle cell anaemia (SCA) in steady state (SCASS) and in 20 (11 males and 9 females) SCA patients in vaso-occlusive sickle cell crisis (VSCC). A control group of 50 healthy (23 males and 27 females) individuals matched for age and sex was also studied. Platelet aggregation time to ADP in SCASS (57.2 +/- 39.1) and in VSCC (31 +/- 11.1) were more prolonged ($p < 0.05$) compared to controls (12.7 +/- 5.2). It was also significantly more prolonged ($p < 0.05$) in VSCC than in SCASS. Platelet adhesiveness time was 31.1 +/- 13.7 seconds in SCASS, 30.9 +/- 11.1 in VSCC, and 37.7 +/- 13.0 in controls and was significantly lower in both SCA groups ($p < 0.05$) but there was no significant difference between the two SCA groups themselves. Clot retraction was 52.8 +/- 6.9 in SCASS, 53.6 +/- 10.7 in VSCC, and 45.9 +/- 8 in controls and was significantly higher in both SCA groups than in controls ($p < 0.05$). There was no significant difference between the two SCA groups themselves. We conclude that platelet function is deranged in indigenous Kenyan patients with SCA.